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# ACUTA eNews July 1986, Vol. 15, No. 7

*Association of College & University Telecommunication Administrators*

VOLUME 15, NUMBER 6 JULY, 1986 RUTH A. MICHALECKI, EDITOR

211 Nebraska Hall, University of Nebraska, Lincoln, NE 68588 • Telephone (402) 472-2000

## FALL SEMINAR---ORLANDO, FLORIDA

Brochures will be coming very soon for the ACUTA Fall Seminar, being held this year in Orlando, Florida October 26 thru 29, 1986. When you receive your brochure, you should waste no time getting your hotel reservations made. The hotel has a firm cut-off date of September 12 and requests for rooms received after that date will be made on a "space available" basis only. Since the hotel is a popular one, located in a highly popular resort area, there is seldom any space available.

The hotel is the Royal Plaza Hotel located in Walt Disney World Village in Lake Buena Vista, Florida. Their telephone number is: 305-828-2828. I found it interesting that Disney World is celebrating their 15th anniversary the same year that ACUTA held their 15th Annual Conference. Sounds like our members are in for a lot of excitement at this year's Fall Seminar.

Bill Morris (ACUTA's Vice President and Seminar Host) asked me to remind our members that they can save their institution money and help reduce ACUTA's expenses if they use or direct their travel agency to use the special Delta Flight Reservation Number, when they make their airline reservations. That number is: 800-241-6760, refer to J.O. 249.

The Fall Seminar promises to be another excellent program. It will examine in depth the entire "Management Information Systems" issue; looking at and reviewing packages on the market versus designing your own system or customizing a packaged system to fit your needs. A few years ago, ACUTA hosted a Management Information Seminar in Madison, Wisconsin and repeated it in San Diego that same winter due to popular demand. Since then, many of our members have reported some bad experiences with some of the packaged systems falling short of expectations, delivery times not met and being forced to settle for less than promised. A lot has happened in this entire area of software development since then, with more sophisticated packages being offered and with a lot of newplayers in the field. Question? Are the Management Information Systems of today functioning as advertised---or do they still fall short? The seminar will include a panel of ACUTA members discussing both good and bad experiences with the systems they are using.

In addition, ACUTA will be providing an opportunity for vendors of Management Information Systems software and hardware to exhibit their products and demonstrate their systems. Anyone interested should contact host Bill Morris in Orlando, Florida for further information. Bill's number is 305-275-2113.

If you are considering a Management Information Systems package or looking at developing your own, this is a seminar you can't afford to miss!

## PARTY LINE

—Ruth Michalecki, Nebraska

The 15th Annual ACUTA Conference lived up to all our expectations! It was the largest conference in our history with over 325 attendees, and our sessions were, for the most part, outstanding. And as if good attendance, excellent programs and speakers, good food, etc., are not enough to have a successful conference, our 1985-86 ACUTA President, John Sleasman, somehow managed to bring a few of the tall ships into the Norfolk Harbor (for a few days of R&R), enroute to the July 4th celebration in New York City. Watching the tall ships sail into the harbor is something I'll never forget. Fortunately for our well-planned program, they timed their departure for around lunch on Monday....

This year's keynote address was given by Dr. Arno Penzias of AT&T Bell Laboratories. He discussed Information Technology and Higher Education and made many thought provoking remarks. For instance, Dr. Penzias commented that Plato would have great difficulty recognizing our high school/university graduates of today, but would have little, if any, problem identifying with our three-year olds. The three year olds still have that great natural curiosity and ask endless questions about the world around them, and then after they start their journey through our education system, they stop asking questions. Dr. Penzias felt we tend to "slot" people into disciplines and too often forget that regardless of any specialized discipline, we are all members of the human race and could benefit from a broader educational perspective---one that encourages thinkers, questioners, etc...

He had some interesting things to say about the role of telecom managers in higher education and if I can get a copy of his talk, I'll share his remarks with those members not fortunate enough to attend this year's conference. At any rate, it was indeed an honor to visit with this warm, friendly and intelligent individual---one whose work will impact our society for many years.

Geoffrey Tritsch of TMC had an excellent presentation covering Student Services. He reminded us that resale of student services includes more than simply long distance. It includes basic dial tone, local service, long distance, instruments and payphones; data access and services; CATV and all associated services. In discussing why one should consider providing student services, Geoff gave these five reasons: 1) sell the unsold dorm room, 2) enhance the image of the school, 3) attract faculty and students, 4) prevent migration off-campus, 5) safety/security issues. He said resale is most attractive to large private institutions since it is a numbers game. Some of the myths about student resale include: High Profit (resale might not support itself much less guarantee `substantial

PARTY LINE, Continued:

profit'), Ability of using administrative network off-peak for `next-to-nothing' (usage-sensitive pricing makes the difference), Telephones don't need much service,
and finally the myth that handling several thousand student bills is no big deal.

Geoff summarized his Student Services Session as follows:

-----Resale has its promises and pitfalls.
-----Resale is not for everyone.
-----Understand your institution's need and its capabilities to deliver the services.
-----Model and project carefully.
-----Chose your course---proceed with caution.
-----If you're going to do it, DO IT RIGHT!

John Powers from TMC anchored the Norfolk Conference, presenting his session on Roadblocks to Integration as the final general session on the program. It was well worth staying for! John started his session with a little background on voice/data integration hype such as "Chicken in every pot, terminal on every desk" and "Integrate through a PBX or your career ends". With the introduction of the new integrated PBX architecture (InteCom, CXC, Ztel), the 2nd generation switches were hurt by the so-called 3rd generation hype, and we were introduced to the IBM Cabling System and AT&T PDS. John said 1985 was the year of the vendor with telecommunications system vendors wanting to look like computer vendors and vice-versa. It was also the year when LAN and data switch vendors slowed down the move towards integration.

Turf and Technology were the two roadblock categories described by John. He stated that "You cannot successfully sell an integrated solution to a non-integrated organization." Lack of any clear mission statement on the part of the institution, departments, managers and vendors, and the determination of most to protect their turf are roadblocks. Front runner for technology roadblock is ISDN. John had several definitions for ISDN: Individual Survival Digital Networking, or I Still Don`t kNow.

Wiring becomes an issue in total integration of voice/data and John cautioned that "universal" characteristics of wiring designs must be institutionally driven. The overall emerging telecommunications mission statement seems to be: "Managing the transport of information.

He concluded his excellent presentation with this thought: "Integration is a Process, Not a Product."

The Panel of Experts was a huge success and could have probably went on for another hour at least. Lots of interaction between the panel members and attendees.

Stewart Shore from Altel Data in Canada received very high ratings for his all-day session on Introduction to Data Communications. Dr. Charles Baker all-day session on Advanced Data Communications was well attended and was rated very high by the attendees. Dr. Baker told me he was impressed with ACUTA members, when after a full day of listening to highly technical information, he still had a full house at 5pm and after. The feeling was mutual.....

Dustin Sykes from Vanguard Communications conducted a session on Voice Messaging and certainly enlightened the attendees on different applications for this technology and ways to market it. His presentation focused on universities and he obviously did his homework well because he was very well-informed. A few of the applications for universities are: Provide Registration Information, Enrollment Information; Event Information (such as Theater, Athletics, Intramurals, Job Interviews, Haley's Comet) and General Information (such as Library Hours, Menus, Procedures, Class Closings, etc.). The benefits are many , such as better utilization of professional staff and of support staff, improved service to students and to community, need for fewer memos and fewer meetings, the ability to make faster and better decisions based on quick distribution of timely information, and improved communications between mobile people. He cautioned those considering this technology that training is a challenge, but an absolute MUST! And he reminded us to be sensitive to the resistance to change. We have used voice messaging at the University of Nebraska for three years, and I agree with his words of caution. It takes a great deal of time and patience to successfully implement this technology, and it is a continual process.

I have covered only a few of the sessions at this years conference. All of the sessions were very good and deserve individual mention. The sessions were taped and we will let you know how you can order tapes and what the cost will be. Look for the information in the next issue of ACUTA News.

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This little bit of information was taken from the May 28th issue of **Chronicle of Higher Education**:

....."The highly-publicized new telephone system is scheduled to be installed and in working order in most departments in the College by May 24..... Those who have two phones on their desk while the project is being completed are advised to answer the one that rings....." --From "Points", a newsletter of the College of Education at the University of Minnesota.

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I had a note from Ken Soper at George Washington University in Washington, DC. They were scheduled to cut over the first buildings in July to their new system (AT&T-85). He has issued an open invitation to ACUTA members visiting in the nation's capitol to drop in. He said they are just one block from the "Foggy Bottom" subway stop and four blocks from the White House. His number is 202-676-6521, although following completion of the cutover, the college exchange number will be 994. They are using a newsletter to keep their faculty, staff and students informed of the project, cut schedules, training dates, etc.

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Bob Mackey from the University of Minnesota asked me to inform our members that with the completion of their new telephone system, the university will employ four new exchanges in the 612 area code. They are: 624, 625, 626, and 627. You may wish to update your routing tables to include these new exchanges in the 612 area code.

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And from Len Rusch, University of Wisconsin-Oshkosh came this article. Len said it made his day---and it also made him aware that we still had some education left to accomplish in this area.

....."A disc jockey's April Fool's joke left residents feeling silly as they waited for the telephone company to clean out their phone lines. The prank began shortly after 6am on April 1st when the local radio station (WLXR), began broadcasting phony advertisements saying the local phone company was cleaning out their telephone lines that day.

The taped ads instructed LaCrosse residents to put bags over their phone receivers to prevent dust and soot from being scattered around the house while dirt was blown from the telephone lines. People fell for it hook, line and sinker.

PARTY LINE, Continued:

The reaction was almost immediate. Central Telephone of Wisconsin officials said their lines were swamped with dozens of calls from people wanting more details. Some people asked how to put the bags on their phones; what they should do if the phone rang while the bags were still on them, and when they could remove the bags. Repairmen were called to some areas of the city with four-party service because access was blocked by people who left their bag-covered receivers off-hook.

The telephone company finally called the radio station and asked the prank be stopped. The radio station was also swamped with phone calls and agreed to call the whole thing off. The disc jockey apologized over the air and credited the phone company with being gracious despite the problems caused by the joke. By the way, the ads were careful to point out that people could still make emergency phone calls while the lines were being cleaned out....."

Thanks Len for sharing that bit of humor with us. Does anyone remember the days when AT&T claimed non-telco devices connected to their lines would induce harmful rays into the network and cause their lines to be damaged?

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ACUTA ROLM USERS GROUP FORMED:

At the Norfolk Conference, sixteen (16) institutions formed a mutual interest group. The members will exchange information, both good and bad, and discuss common problems and needs.

Rolm Corporate Headquarters has been asked to appoint a liason to this group to act as the focal point for questions and answers.

Mr. Alan Smith of York University was elected coordinator for the ACUTA ROLM Users Group for next year's annual conference. Any ROLM users or anyone interested in participating should contact:

Mr. Alan Smith, York University
Downsview, Ontario Canada M3J 1P3
416-736-2100

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Bill Karle, Director of the Office of Communication Systems at the University of Manitoba sent copies of a newsletter put out by his office. The newsletter keeps faculty and staff informed about what is happening in Communication Systems. They have been in the process of installing a new telephone system and the newsletter is full of interesting and informative bits covering this operation, along with information covering data processing, software packages, video, etc. I found an article in the October/85 issue that I would like to share with you. The article asks: What is the world's biggest machine? The answer, according to Ernie Welling in an article published in the May/85 issue of Electronic Products & Technology, is the worldwide telephone system. He notes the world has about 600 million telephones and just about any of them can reach any other telephone. Local telephone systems are connected to national ones while satellites and undersea cables link nations. Like any good machine, the parts mesh and like a machine, useful functions are performed. This machine carries voice, data and images and the tremendous growth in data communications is putting pressure on the machine.

User expectations are high. They expect reasonably priced local and toll services---they expect data communication to be as easy as voice; yet government jurisdictions and regulations are preventing reasoned responses to these demands. Pressures on the machine exist---but are political, not technical....

Are any other members using a regular newsletter to keep their faculty, staff and students informed of what is happening in telecommunications at your institution? If so, please share them with me. It's an interesting idea and one that we might explore at Nebraska to simply keep our people informed, even if we are not in the process of installing our own system.

Interesting point of view. Thanks Bill for sending your newsletters and with your permission, I'll be quoting from them once in a while in ACUTA News.

And for a final note from me this month---my peaceful existence in Lincoln, Nebraska has been disturbed and is due for considerable greater disturbance. Equal Access is coming to Lincoln and all the hype associated with it. I hope I survive! You will find a couple of articles concerning selection of a carrier from a user's point of view in this issue of ACUTA News, and I have to admit, to a degree, they echo my sentiments somewhat. So far, I have received six letters from AT&T at my home and at least that many telephone calls from the same company. I can hardly wait for the others to get started!

See you next month.....

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We wish to thank the following vendors and organizations for their continued support of ACUTA at the 15th Annual Conference in Norfolk.

AT&E CORPORATION
Steven Collins, 503-690-2000

AMDAHL COMMUNICATIONS
Bob Olson, 800-433-0075, 214-699-9500

AT&T
Sandra Ellsworth, 201-221-3436

BELL ATLANTIC
Vi Shaffer, 703-974-3981

BELL OF PENNSYLVANIA
Tel Gilroy, 717-255-5360

BELLSOUTH SERVICES
Tom Holloway, 404-529-8611

COMPCO
Jim Quiggins, 615-373-3636

DAVID SYSTEMS
Michael O'Connell, 408-720-8000

ERICSSON INFORMATION SYSTEMS
Ann Geyer, 214-669-9900

GTE
John Adams, 517-723-0333

NORTHERN TELECOM
Mike Molett, 214-437-8000

NORTH SUPPLY COMPANY
Bill Byers, 913-791-7000

PAYTEL SYSTEMS, INC.
Anthony Cappaze, 201-627-3800

ROTELCOM
James Mahan, 716-475-8411
David Hadley, 704-541-5880

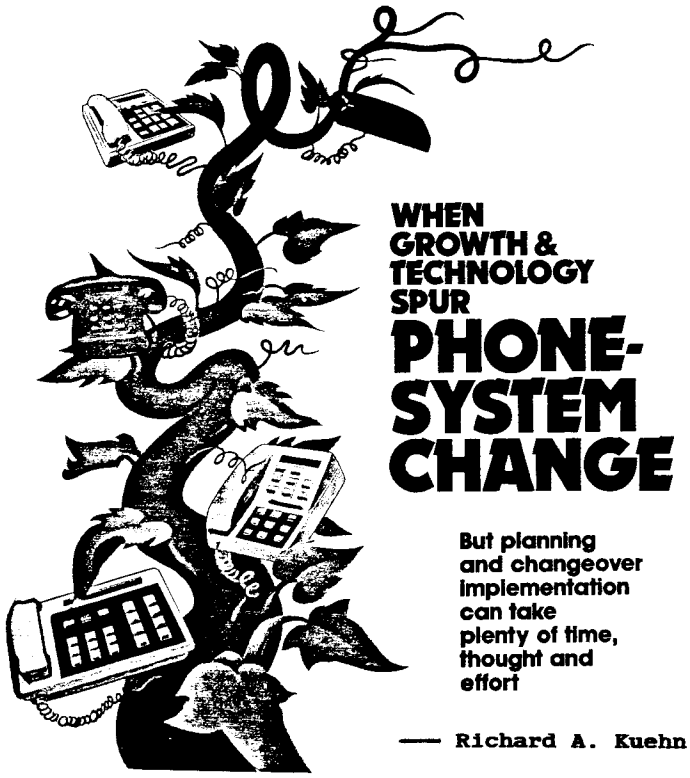
SHARENET
Beverly Foxx, 404-394-0095

SOFTWARE SYSTEMS, INC.
Arthur Girard, 305-997-9999

TELECOMMUNICATIONS SOFTWARE, INC.
Randall Manuel, 516-689-8989

UNIVERSAL COMMUNICATIONS SYSTEMS, INC.
Robert Kirkendall, 703-362-3701

US TELECOM
James Wells, 404-982-1000



# WHEN GROWTH & TECHNOLOGY SPUR PHONE-SYSTEM CHANGE

**But planning and changeover implementation can take plenty of time, thought and effort**

**— Richard A. Kuehn**

AN ORGANIZATION experiencing a 10% annual compound growth could expect to outgrow the capacity of its telephone system in about seven years. That relatively short equipment life cycle could result in accelerated technological changes that might require replacement. For example, the existing system could be increasingly difficult to service and maintain, because of technology or vendor changes in the industry.

Telephone systems are not replaced overnight. The planning-through-implementation process could require six to eight months. If present equipment remains secured under a rental agreement from predivestiture days, that equipment could experience consistent upward rate pressure.

Establish the system's status to determine what must be replaced. Determine what is used on the system and secure copies of telecommunication bills from the telephone company, specialized common carriers, telephone-equipment vendors and service organizations.

A one-month representative copy of these bills should be obtained and a list prepared by individual bill numbers. An acccounting spread sheet should be compiled to identify the communication cost for these services:

- Local trunk or business-line costs are reflected as "monthly service." These are the access lines to the telephone company's central office.

- Equipment cost, if still rented as part of the embedded base, will be a separate invoice from AT&T Information Systems. Otherwise, equipment lease and/or maintenance must be considered.

- Cost of local use, if the organization is situated in an area with message-unit costs.

- Cost of long-distance service on an intra-lata (long distance billed by the local telephone company) and inter-lata (long distance billed by an inter-exchange carrier).

- Cost of moves, changes and rearrangements.

- Miscellaneous categories such as taxes and directory advertising.

Request copies of the detailed "service records" of each of the bills received from the local telephone company. Such an itemization can indicate the number of trunk or business lines on the system and identify other local-service costs. That is useful to identify quantities necessary to serve the new system and to identify specific network functions being used.

Ask the telephone-company representative to explain each item and/or code on a bill. For example, a "cable-carrying" charge might be contained in such an itemization, which is the rental of station cable owned by the telephone company. System purchase can eliminate these and other charges.

Local use, inter-lata long distance charges, including costs for alternative long-distance services such as leased channels, WATS and specialized common carriers, can begin to dictate the new system's potential requirements.

For instance, expenditures in these categories could indicate a requirement for automatic route selection. That function can automatically select the lowest-cost method of long-distance calling from the services connected to the system.

Incorporation of a station message detail recording system also could be indicated. That can provide a record of local and/or long-distance calls that can be presented in a hierarchy of reports for cost accounting or allocation purposes. Administration of these reports can reduce unnecessary or abusive calls, lowering these use costs by a generally industry accepted 10%.

Knowledge gained through the bill reviews could formulate other possible desirable functions for the new system. For example, automatic-call distribution could provide productivity gains to 30% in areas receiving large numbers of incoming calls.

Utilization of single or multiline telephone instruments can only be accomplished through a station review or interviews with department heads.

Installation of voice and data cable to all outlets could reduce the ongoing cost of moves, changes and rearrangements of telephone and data terminals. To achieve that, four-pair cabling can be installed to each telephone outlet. In most instances that can allow two spare pairs of cable to be used, at little cost, for data communication. Maintaining an ongoing inventory of cable installation, together with the centralization of administration of moves and changes, can reduce the life-cycle cost of the communication system by an estimated average of $1,000 per instrument.

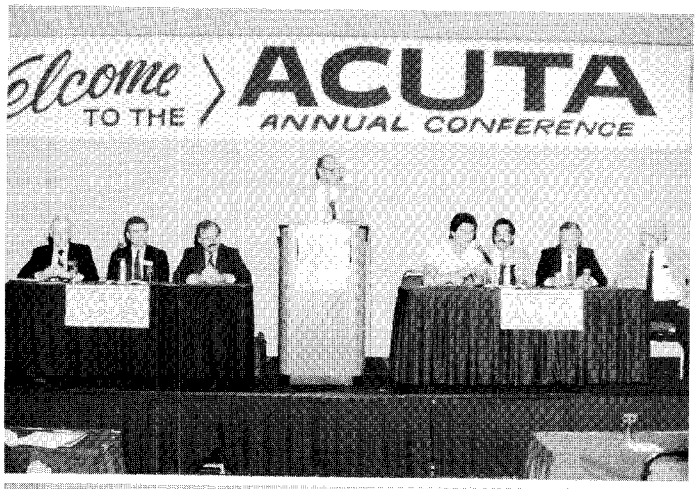
Once system needs are firmly in mind, prepare a specification for presentation to vendors. In the absence of a written document outlining the terms under which the system will be purchased and the operating requirements of that system, it is unrealistic to expect that comparative proposals, offering apples-to-apples service will be received.

When proposals are received, rank them from low to high cost. A proposal that is much higher than the average usually can be eliminated. Yet a bid that is clearly below the average should be carefully reviewed to be sure that it meets specification requirements.

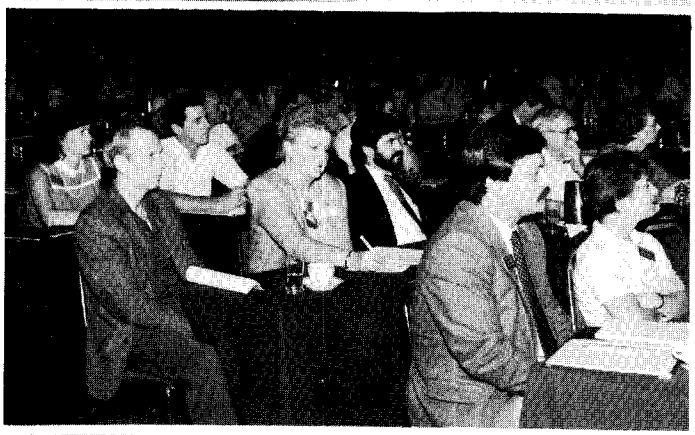
Overall evaluation should consist of these areas:

- The stability of the manufacturer and its reputation

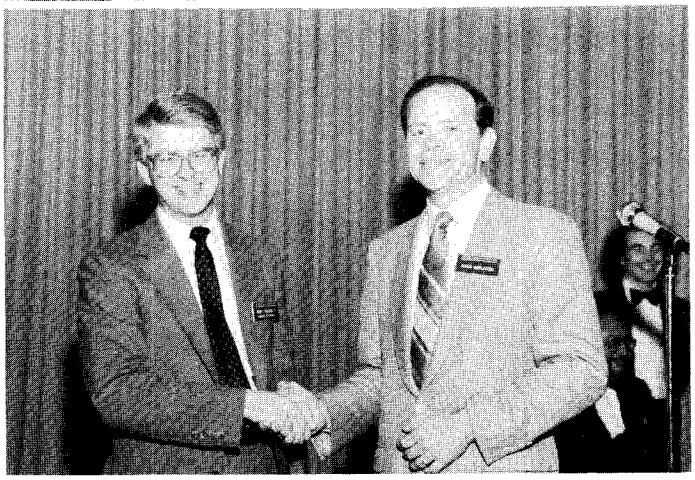
*ACUTA's 15th*
*Annual Conference*
*June 29-July 3, 1986*

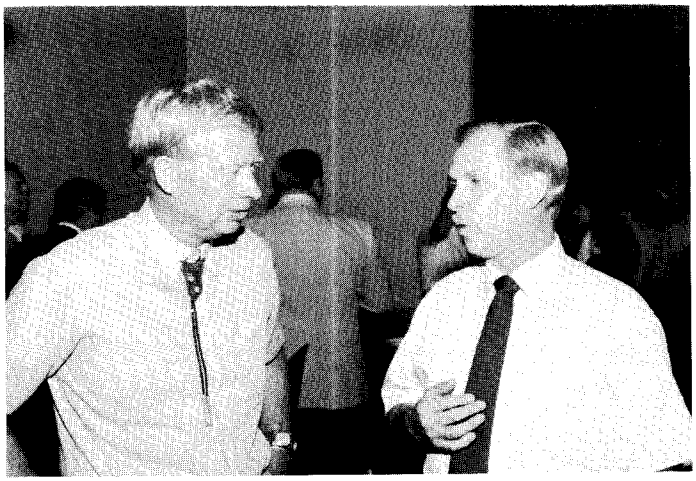


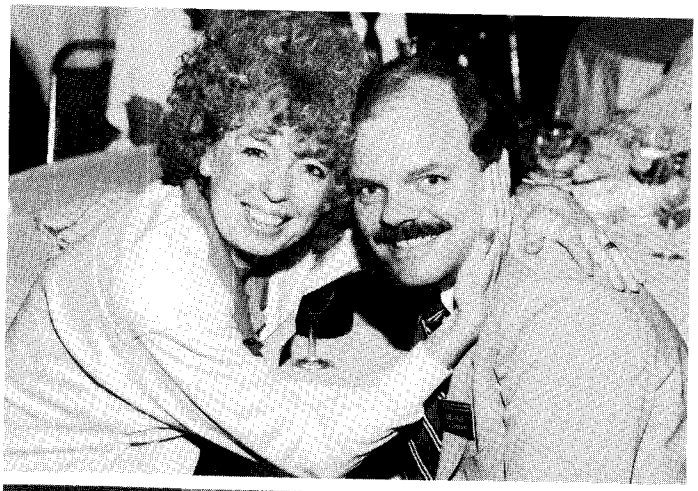


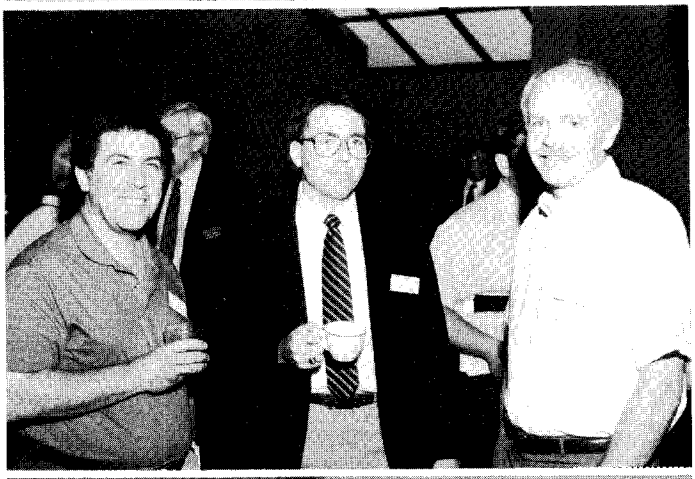


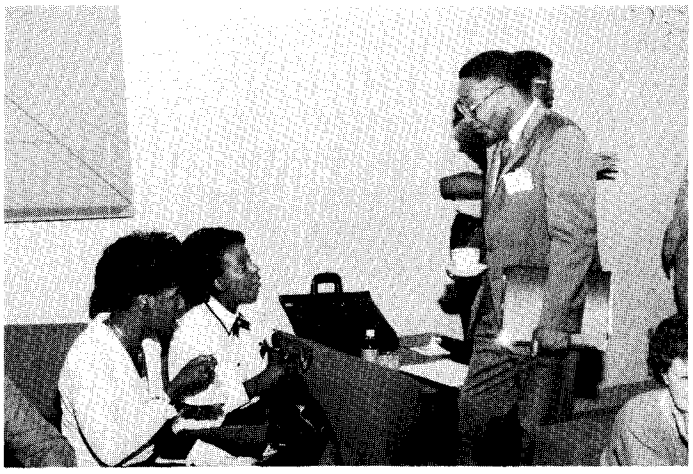










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for standing behind the product. It does one little good to acquire a system if the manufacturer ceases to exist.

● The equipment itself. Not only is a user interested in the equipment's potential to fulfill the present and projected needs, but also its capability to be adapted to unforeseen requirements over the life cycle. Ask questions of the vendor's sales and technical personnel. Be sure that you completely understand system functions and the vendor's ability to meet the expectation of the installation. Local-service support should be investigated. Ultimately, the best equipment and manufacturer is at the mercy of the operations manager of the local supplying office. Conversations with references provided by the vendor and other users can provide sound information.

● Life-cycle costs are the best measure of comparison. That should include costs for maintenance contracts, equipment, moves and changes, and availability of software changes at the customer level. However, cost should not be the driving consideration. At best, 25-35% of the overall valuation process should be in that area.

Also include telephone company operating costs. For example, a system of 50 telephones could be served by a PABX or hybrid key system. While acquisition cost should be only slightly lower for the key system, that equipment is connected to the central office by business lines that cost about 20% less each month, than the trunks that are necessary for the PABX.

In evaluating the local vendor, which is perhaps the key to overall project success, consider the support level that is provided for ongoing maintenance and station-user training. That can be established through interviews with users, along with an indication of the support quality that can be expected. Visits to specific installations can assist in evaluation. The primary area of interest is the condition of the equipment room and intermediate cable distribution frames.

The system acquisition and maintenance agreements should be signed simultaneously. A system-acquisition agreement outlining expectations of the buyer and promises of the vendor, can generally be accomplished by amending to a purchase document the vendor's bid response, the manufacturer's description manual and other correspondence relative to the acquisition.

The most common change is the scheduling of the final system payment. Most vendors require final payment at the time of system cutover. The buyer should modify final payment to occur at the time the system is deemed acceptable. It is recommended that a maintenance contract be secured with each system.

The buyer should continue to monitor implementation to ensure that contractual and user expectations are met and that installation is successfully completed. Trainers provided by the vendor should be used for initial station-user training. In-house personnel should only be involved in refresher training of new employees.

With the system cutover, the vendor's mission is to secure the purchaser's acceptance and the final payment. Within 30 days the purchaser should notify the vendor in writing of potential defects that prevent acceptance. The buyer should withhold final payment until an itemized list of service problems is resolved to the purchaser's satisfaction.

**THE COST OF CHANGE FOR NEW SYSTEMS**

Before replacing a telephone system it is necessary to have an idea of the acquisition cost. Essentially, these systems can be installed in any given location.

**1. Electromechanical key-telephone system.** Normally installed with fewer than 15 instruments. Cost of such a system should be about $500 per instrument. While the lowest possible cost, the electromechanical nature of the equipment makes it labor intensive in terms of reconfiguration and maintenance. So it is possible that the life-cycle cost could be higher than other alternatives.

**2. Electronic key-telephone system.** Generally installed with fewer than 20 stations, its major limiting factor is call volume. When the number of calls are high, more lines are required. The more lines required, the larger the instrument size. Normal acquisition costs should be $600-$700 for each instrument. Because the electronic key telephone system is microprocessor controlled, live-cycle costs can be reduced because of software initiation of moves, changes and rearrangements.

**3. Hybrid or multifunction system.** Normally certified as a key-telephone system, this can include many PABX characteristics, because access to central office facilities can be pooled and line appearances need not be directly made of central office connections. In the 40-80 instrument range, this is actually a competitor to the small PABX system.

**4. Larger PABX.** It can be budgeted at $1,000 per instrument, but that could vary because of competitive conditions.

**5. Integrated data.** To add that function at the handset level to the above PABX could cost an additional $600-$800 per equipped station.

**DOES PHONE ACQUISITION REQUIRE A CONSULTANT?**

Given the complexity and cost of telephone-system acquisition, is it beneficial to engage a consultant to assist in the process? The consultant's expertise can certainly reduce the time of designing the system and preparing specifications. The consultant's recommendation also can lend credibility to the overall project. A consulting fee could normally be expected of 7-15% of a standard telephone-system acquisition cost (with the percentage declining as the system size increases).

Yet the total abdication of design and selection to the consultant could be fraught with long-range problems. During design and selection, a number of decisions are made in regard to immediate applications, future needs and how the recommended system can accommodate the perceived requirements. In the absence of a thorough understanding by the user of that decision process, it is virtually impossible to provide ongoing system administration.

While consultants can provide some benefit to the project, it is necessary that a representative of the organization remain involved in the overall design, selection and implementation.

Richard A. Kuehn is a telecommunications consultant based in Cleveland, Ohio. This article was reprinted with permission from Office Systems 86.

# Dial M For Madness

**— Dave Barry**

I want them to stop explaining my long-distance telephone options to me. I don't want to know my long-distance options. The more I know about my long-distance options, the more I feel like a fool.

They did this to us once before, with our financial options. This was back in the '70s. Remember? Up until then, if you had any excess money, you put it in a passbook savings account paying 5 1/4 percent interest, and your only financial options were, did you want the toaster or the electric blanket. For a really slick high-finance maneuver, you could join the Christmas Club, where you gave the bank some money each week and, at the end of the year, the bank gave you your money back. These were simple, peaceful times, except for the occasional Asian land war.

And then, without warning, they made it legal for consumers to engage in complex monetary acts, many of them involving "liquidity." Today, there are whole radio programs in which all that happens is people call up to ask what they should do with their money:

"Hi, Steve? My wife and I listen to you all the time, and we just love your show. Now here is the problem: We're 27 years old, no kids, and we have a combined income of $93,000, and $675,000 in denatured optional treasury instruments of accrual, which will become extremely mature next week."

Now to me, these people do not have a problem. To me, what these people need in the way of financial advice is: "Lighten up! Buy yourself a big boat and have parties where people put on funny hats and push the piano into the harbor!" But Mr. Consumer Radio Money Adviser, he tells them complex ways to get even more money and orders them to tune in next week.

These shows make me feel tremendously guilty as a consumer, because I still keep my money in accounts that actually get smaller, and sometimes disappear, like weekend guests in an old murder mystery, because the bank is always taking out a "service charge," as if the tellers have to take my money for walks or something.

So I feel like a real consumer fool about my money, and now I have to feel like a fool about my phone, too. I liked it better back when we all had to belong to the same Telephone Company, and phones were PHONES--black, heavy objects that were routinely used in the movies, as murder weapons (try that with today's phones!).

Also, they were permanently attached to your house, and only highly trained Telephone Company personnel could "install" them. This involved attaching four wires, but the Telephone Company always made it sound like brain surgery. It was part of the mystique. When you called for your installation appointment, the Telephone Company would say: "We will have an installer in your area between the hours of 9 a.m. Oct. 3 and the following spring. Will someone be at home?" And you would say yes, if you wanted a phone. You would stay at home, the anxious hours ticking by, and you would wait for your Phone Man. It was as close as most people came to experiencing what heroin addicts go through, the difference being that heroin addicts have the option of going to another supplier. Phone customers didn't. They feared the power of the Telephone Company.

I remember when I was in college, and my roommate Rob somehow obtained a phone. it was a Hot Phone. Rob hooked it up to our legal, wall-mounted phone with a long wire, which gave us the capability of calling the pizza delivery man without getting up off the floor. This capability was essential, many nights. But we lived in fear. Because we knew we were breaking a rule--not a local, state or federal rule, but a TELEPHONE COMPANY rule--and that any moment, agents of the Telephone Company, accompanied by heavy black dogs, might burst through the door and seize the Hot Phone and write our names down and we would never be allowed to have phone service again. And the dogs would seize our pizza.

So the old Telephone Company could be tough, but at least you knew where you stood. You never had to think about your consumer long-distance options. Whereas today you cannot turn on the television without seeing Cliff Robertson, standing in some pathetic rural community with a name like Eye Socket, Mont., telling you that if you don't go with his phone company, you won't be able to call people in rural areas like this, in case you ever had a reason to, such as you suddenly needed information about heifers. Which sounds reasonable, but then Burt lancaster tells you what a jerk you are if you go with Cliff because it costs more. But that's exactly what Joan Rivers says about Burt! And what about Liz? Surely Liz has a phone company!

So it is very confusing, and yet you are expected to somehow make the right consumer choice. They want you to fill out a BALLOT. And if you don't fill it out, they're going to ASSIGN YOU A RANDOM TELEPHONE COMPANY. God knows what you could wind up with. You could wind up with the Soviet Union Telephone Company. You could wind up with one of those phone companies where you have to crank the phone, like on "Lassie," and the operator is always listening in, including when you call the doctor regarding intimate hemorrhoidal matters.

So you better fill out your ballot. I recommend that you go with Jim & Ed's Telephone Company & Radiator Repair. I say this because Jim and Ed feature a service contract whereby you pay a flat $15 a month, and if you have a problem, Jim or Ed will come out to your house (Jim is preferable, because after 10 a.m. Ed likes to drink Night Train wine and shoot at religious lawn statuary) and have some coffee with you and tell you that he's darned if he can locate the problem, but if he had to take a stab, he'd guess it was probably somewhere in the wires.

ACUTA wishes to thank The WASHINGTON POST, for this article which appeared in their Sunday, July 6, 1986, issue.

**Lori Curry with Liz and Jim Dronsfield at Norfolk**

# How do I choose a telephone company?

**— Don Walton**

How should I know what long-distance phone company I want?

I've got enough decisions to make as it is.

Like which socks to wear today.

And what to eat this noon.

**IN THE GOOD OLD DAYS** of monopoly tyranny and conglomerate rule, at least I didn't have to shoulder the burden of picking a long-distance phone company.

The only dicision I had to make was whether I wanted phone service or not. If I said yes, "they" took care of it.

In our town, of course, they are LT&T, now called the Lincoln Telephone Co., apparently having dumped their vast telegraph holdings.

"They" have provided me with long-distance service through AT&T, the company that used to rival Japan as a world economic power, owning everything in this country that wasn't battened down.

And that was that. No questions asked -- or, for that matter, tolerated.

Now the ads ominously warn, if you don't choose a phone company, "someone else will do it for you."

So? That's the way it always worked before.

**I'M NOT SURE WHO** the mysterious person, or entity, is that would be making the decision for me this time. But the advertising message seems clear enough: You don't want someone else running your like, do you?

Un, I'd like a little more time to think about that.

Lincolnites had better hunker down. They are about to be bombarded by ads, commercials, direct mail and telephone calls soliciting their long-distance business, some from companies I've never heard of.

I assume they all have varying rate structures and plans -- but that each is ukniquely and perfectly structured to meet my specific needs with the most economical and reliable service.

Boy, that ought to help me reach a decision.

So what do I do?

**I SUSPECT** the first thing I'll do is throw away all the direct mail upon receipt and spare myself all that confusion. I only read the magazines, the bills and the sweepstakes entires anyway; the rest goes directly to the landfill.

I really don't care to invest a lot of time and effort in choosing a phone company.

Or an electric company.

Or an army.

The overriding question, of course, will be Ma Bell.

To be or not to be. To continue to be a customer of supercompany, albeit a shrunken version of her old pre-divestitured self. Or not to be.

Whether to remain at the side of that distant Amazon on whom you have relied all these years, or to lend a hand to one of the young challengers.

Hamlet would have had a tough time with this one.

If you are comfortable with the first option, that's it. Your decision has been made. Home to mama.

If you choose to pursue the latter course, then you need to pick among the new breed, comparing rates and plans. Or, I suppose, as some betters do at the track, by choosing a name you like. Or a logo.

**OF COURSE,** as a Yankee fan and a FirsTier depositor -- more of a withdrawer, actually -- I am naturally predisposed to AT&T.

But I don't want to make a decision quite yet. I want to remain flexible. I want to appear hard to get.

Perhaps some company will offer me a free clock-radio. Nebraska football tickets. Or, I suppose, more likely one free call to Peking.
Maybe they aren't allowed to do that. But it would make the choosing process a lot more fun.

It's possible, I suppose, that some subliminal message will get through to me before decision day and tip the balance in favor of one of the newcomers.

But I think I'm going to be a hard market to reach.

**LIKE MOST OF YOU,** I've had a lot of experience ignoring or, better yet, avoiding TV and radio commercials. The only TV commercials I really pay attention to are the Lite Beer adventures.

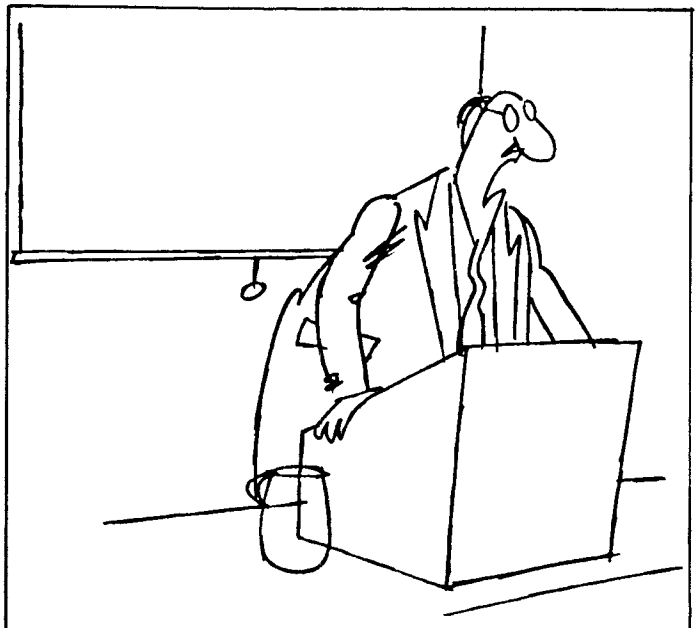
But somehow Ma Bell has slipped through the barrier. I have heard her message.

Although I might choose to remain an AT&T customer, I think I'll ignore her advice.

"Reach out and touch someone," the company suggests.

You could get in a lot of trouble doing that.

The above article appeared in The Lincoln Star newspaper, Lincoln, Nebraska.



"I will be projecting the statistical results of our computer study of business spending as it impacts on other sectors of the economy. **Who just said, "Set your snooze alarm?'"**

# PENN STATE'S INTEGRATED TELECOMMUNICATIONS AND TELECONFERENCING NETWORK

**— David L. Phillips**

The Pennsylvania State University is the land-grant institution for Pennsylvania and has developed a system of 22 campuses located throughout the Commonwealth. It refers to itself as "one university geographically dispersed." That means that faculty members at all locations are members of departments centered at University Park. Administrators at campus locations have ties to central administration at University Park. Most services -- including academic computing -- are provided centrally. All of which means that Penn State has the potential for massive communications problems.

In October, 1984, as the breakup of AT&T was imminent and telecommunications technology was advancing rapidly, the Office of the president created a Telecommunications Task Force to study the problems and opportunities these changes presented. The Task Force represented the key players in voice, data, video, and physical plant divisions. After a year of intensive work, they submitted a Telecommunications Strategic Plan for the University that calls for an integrated organization and an integrated network, carving many of these functions out of their existing "empires."

The Administration has accepted the basic premises of the Plan and has established an Office of Telecommunications that integrates voice, data, and video communications. One of the key recommendations was for the use of high-bandwidth (T-1) carriers between University Park and the 21 other campus locations. Half of the 1.544-megabit capacity would be for voice and data, the other half for two-way compressed video conferencing. Data traffic would be on 19.2 kb/s circuits at less cost than the present 9.6 kb/s lines, and there could be more of them. The videoconferencing would get virtually a "free ride."

One of the first major projects has been to establish a prototype T-1 carrier between University Park and Penn State's Behrend College in Erie, Pennsylvania, using AT&T circuits. The choice of Behrend was based chiefly on their administrative needs for videoconferencing, although they have a very heavy demand for data communications, as well. The Task Force found that one-and-a-half administrators, on average, were travelling the 200 miles to University Park on nine out of ten working days, a four-hour trip each way. That meant that the University was losing 13.5 man-days every two weeks or 350 man-days in a 260-day year. It was felt that videoconferencing could reduce this travel time dramatically, although certainly not eliminate it. Later, the instructional media staff in the Division of Media and Learning Resources became interested in seeing how far compressed video can be stretched for instructional purposes.

The University's Budget Task Force -- the people who allocate central funds -- added to the basic prototype budget enough money to purchase two compressed video "codecs" from Compression labs, Inc. The presentation will include a description of compressed video, show a demonstration videocassette, and explain the differences between codecs from the major vendors.

During the first uses in the Spring Semester of 1986, a credit course, a series of breakfast seminars on high tech for business and industry, and staff development training sessions from University Park were undertaken. Now with adequate lead time, those instructional applications will be increased in the Fall of 1986.

A similar prototype is being planned between University Park and the University's Hershey Medical Center, using an alternate vendor, Pennsylvania Educational Communications Systems. PECS is a private microwave system built by cable operators for the express purpose of delivering credit and noncredit courses to subscribers' homes. It reaches approximately 700,000 subscribers today. Penn State also operates that program service. PECS is now interested in building on its basic system to provide the kind of communications services Penn State needs. Plans are to implement the prototype early in 1987.

Our experience with the Behrend T-1 and particularly the videoconferencing has been very positive. The instructors, students, and administrative conference participants have taken to it very naturally. There has been no special training. So far, regular instructional television studios have been used, but more specialized, semi- or full-automated facilities are being planned for Fall. By then, we should also have tried some of the new "desktop workstations" that combine computer monitor, telephone, and two-way video monitor, perhaps even tied to the new 56 kb/s compressed video and could give our impressions of those new developments.

David L. Phillips is Director of Video Services in the Office of Telecommunications at Pennsylvania State University.

**Dorothy Heinecke, Dale Pollett, and Mrs. Doug Brummell at Norfolk**

ACUTA membership applications have recently been revised. We have enclosed one with this newsletter and ask that you help us recruit new members. If a colleague shows interest, please feel free to photocopy the application for them or have them call my office to obtain one. My number is 607-255-5525.

An important function of ACUTA is the interchange of information among its members. Naturally, the more members we have, the more vital the interchange of information will be. As membership chairman, I would appreciate your assistance in boosting our ranks with both institutional and industry members. If a prospective member wants more information before deciding to join, call my office and request that an information packet be sent.

We're over 700 strong now and I'd like to see that number up to 800 by year end. Thanks in advance for any assistance you can offer ACUTA to keep the membership growing.

**Pat Paul, Membership Chairman**